

Chico

**Golden  
Empire  
Amateur  
Radio  
Society, Inc.**

www.gearsw6rhc.org

"Dedicated to Public Service"

# THE RADIATOR

W6RHC  
IRLP #8170

P.O. Box 202 Chico, CA 95927

August 2021 Newsletter

GEARS Founded August 13, 1939

At our last meeting Travis K6XVX gave an interesting presentation on sending text messages via APRS. He explained how he uses this service is in remote areas without cell phone reception to keep in touch with friends. For more information go to <https://msgte.org/>

We will have another breakfast in August. We plan to continue this on the second Saturday of each month at Farmers Skillet in Chico. However they now that ask our that our group is all on one check, so please bring cash.

I'm very concerned about COVID conditions worsening due to the Delta Variant. Unfortunately Butte County has a low vaccination rate, which puts all of us at risk. It's important that we keep our members safe. If the situation continues to become more dangerous, we may need to increase restrictions or cancel meeting and events. I'll keep our membership informed.

I've posted some old GEARS photos online, including a couple photos from Field Day this year and previous years:

<https://photos.app.goo.gl/bL6ak8oNjZ26hYWt8>

More GEARS photos online, see links at the end of this newsletter.



Happy August Birthday wishes to Kathy Favor K6FAV, Bennett Laskey K6CEL and Jeramie Finch KN6NGE.

Take care and stay safe.

'73

Jim Matthews K6EST

[jiminchico@yahoo.com](mailto:jiminchico@yahoo.com)

530-893-3314



Join GEARS on Facebook

[www.facebook.com](http://www.facebook.com) For timely news and additional information.

## August 2021 Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1 2pm VEC Testing Chico	2 7pm GARS Net 8pm ARES Net 7pm GEARS Board Meeting Zoom	3 7:30pm GEARS Net	4	5 7pm PARS Net 7:30pm Simplex Net	6	7
8 8pm OARS Net	9 7pm GARS Net 8pm ARES Net	10 7:30pm GEARS Net	11	12 7pm PARS Net 7:30pm Simplex Net	13	14 9am GEARS Breakfast
15 8pm OARS Net	16 7pm GARS Net 8pm ARES Net	17 7:30pm GEARS Net 7pm ARES meeting	18	19 7pm PARS Net 7:30pm Simplex Net	20 7pm GEARS Meeting	21
22 8pm OARS Net	23 7pm GARS Net 8pm ARES Net	24 7:30pm GEARS Net	25	26 7pm PARS Net 7:30pm Simplex Net	27	28 9am OARS Breakfast
29 8pm OARS Net	30 7pm GARS Net 8pm ARES Net	31 7:30pm GEARS Net				

**VEC Testing**, FCC License Exam available by appointment. For information or registration call Tom Rider, W6JS 530-514-9211

**Chico Breakfast** 2<sup>nd</sup> Saturday 9am Farmers Skillet Cohasset Rd, Chico

**GEARS Board Meeting** 1<sup>st</sup> Monday 7pm by zoom.

**OARS Meeting** Second Friday of the month

**GARS Meeting** Second Friday of the month

**Butte ARES Meeting** 3rd Tuesday, TBD Contact Dale Anderson, KK6EVX 826-3461 for more information.

**GEARS Meeting**, 3rd Friday of the month, Eyeball QSO 6pm, meeting at 7:00 pm. Search & Rescue Building

**OARS Breakfast** 4th Saturday of the month

### NETS:

OARS Club Net Sunday 8pm 146.655 Mhz - PL 136.5

GARS Club Net: Monday, 7:00 pm 147.105 MHz + PL 110.09

Butte ARES Net Mondays 8pm 145.290 MHz - PL 110.9

Yuba Sutter Club Net Monday 7pm 146.085 MHz + PL 127.3

GEARS Club Net Tuesdays 7:30 PM 146.850 MHz - PL 110.9

PARS Club Net Thursday 7pm 145.290 - PL 110.9

Simplex Net Thursday 7:30 p.m. 146.52 no tone

Yuba Sutter ARES Net Thursdays 7pm 146.085 MHz + PL 127.3

Sacramento Valley Traffic Net Nightly 9:00 PM 146.850 MHz - PL 110.9

### GEARS Century Members

Dale Anderson Kent Hastings

Bennett Laskey Tony Nasr

Scott Roberts

*We thank these members for their extra support.*

### GEARS Repeaters

GEARS West on St. John

145.410 MHz PL is 123.0 Negative offset.

PL both input and output (CTSS)

GEARS East in Forrest Ranch

146.850 MHz Negative offset. PL 110.9 CTSS

440.650 MHz Plus offset, PL 110.9 Hz

## Volunteer radio operators to the rescue in Belgian floods

July 2021: Brabant Wallon's Emergency Radio Network volunteers stepped in when the Police building in Wavre, Belgium – including its TETRA\* antenna and computers – was left completely underwater.

*The Police station's TETRA\* tower - seen in the top left of this image - was under water and emergency services communications were affected (all images courtesy of Marc Lerchs, Information Director, Walloon Brabant Crisis Centre, Belgium)*

Emily Hough interviewed Gilles Mahieu, Governor of Brabant Wallon, Philippe Vos De Wael Director of Operations, Walloon Brabant Rescue Zone Fire Service and Marc Lerchs, Information Director, Walloon Brabant Crisis Centre, about a ground-breaking project involving Belgian amateur radio enthusiasts. These volunteers were connecting the whole of society, providing invaluable back-up should major, wide-scale power cuts affect emergency services communications.

Lerchs describes how early in the morning of July 16, the Police building in Wavre – including its Tetra antenna and computers – was left completely underwater. "This antenna is critical for the Astrid national Tetra system, which is used by firefighters, medics, the police, civil protection, the army and crisis communicators," he tells me. "We also had several local electrical blackouts in Liège, Luxembourg and Brabant Wallon."

Here, the ham radio volunteers came into their own. The emergency number 112 dispatch requested their help and about 30 volunteers were deployed in the provinces of Brabant Wallon and Hainaut. They connected fire stations, ambulance stations, hospitals (including medical emergency vehicles), the main command post in Wavre (the Governor's Crisis Centre and Field Multidisciplinary Command Post) and 112 dispatch in Mons.

"Everything worked perfectly, in VHF, without relays, Internet or relying on the official power network," explains Lerchs, "as ham radio operators are self-sufficient and their equipment is battery operated." He adds that all emergency vehicles, including fire, medics and police, have a GSM phone on board and a charger through a cigarette lighter plug.

"Fortunately, the Tetra breakdown only lasted for half an hour and, during this time, the volunteer radio network was able to dispatch emergency vehicles and provide essential communication between emergency centers."

The volunteer network was stopped at 18:00 hours, when everything was fixed.

"This was an excellent exercise for our Brabant Wallon's Emergency Radio Network (created by our Governor Gilles Mahieu in 2015, in association with UBA, Union Belge des Amateurs-émetteurs)," he tells me. Since then, operators have also been deployed in Liège and Luxembourg.

\*TETRA (Terrestrial Trunked Radio) is the European public safety communications system.

[https://en.wikipedia.org/wiki/Terrestrial\\_Trunked\\_Radio](https://en.wikipedia.org/wiki/Terrestrial_Trunked_Radio)





## A Safer Way to Climb

Drones, “they ain’t just for kids anymore!” Farmers are using them to measure crops, real estate developers are using them to survey land and medical professionals are even using them to deliver supplies to unreachable areas in disaster zones. There’s no question about it, these unmanned aerial vehicles or UAVs make it easier to go where no human can or should go -- and for Amateur Radio operators it means a safer way to inspect towers and antennas. One drone = fewer climbs... all without human intervention other than the pilot on the ground.

Without putting a climber on a tower, it’s now possible to confirm that everything appears to be in good shape. The drone can perform different types of inspection services efficiently, accurately, safely and faster than a human without presenting a hazard. Drones identify damage, exactly where it is, and make it easier to plan repairs.

Three of the most common and important inspections are:

- ➔ Confirm antenna functionality, installation, operation, and enable maintenance trouble shooting.
- ➔ Line inspection — identify compromised cables, burn outs, potential burnouts, and connection joint integrity.
- ➔ Structural inspection — directly related to the structure and all components surrounding it as part of the anchoring system. This inspection provides “points of interest” of any potential structural issues and potential failure points so the operator can make the best decision to ensure the structure’s safety.



Every drone flight reduces a tower climb, lessens risk to life and arms operators with information needed to make better, faster, more intelligent, actionable decisions. If you have a tower installed as part of your station’s setup, perhaps the greatest benefit of using drones is for making a “tower survey” -- a video inspection prior to climbing the structure. The imagery can help to ensure the structure is safe, thus minimizing risk of injury.

Have you ever asked yourself: Is my tower as sound structurally as it was when I originally installed it? Well, the answer is probably not. There could be a bee’s hive, or a bird’s nest, or maybe a cable that has been damaged by wind, corrosion, or even a lightning strike. A drone inspection can help determine if signal strength is being compromised, or gradually degrading.

Send the drone up and take a baseline for everything. Whether the tower is five decades old, or it’s brand new, a baseline for your RF and structural effects will allow you to move forward confidently and evaluate solutions for problems down the road. You can explore, compare and determine what it takes to fix, and what makes sense to invest capital in, and what doesn’t. Once you have a baseline, how often should this be done? It depends on the initial find, the age of the equipment and if everything is up to specs.

In the past several years, numerous towers have fallen and there have been fatal injuries to operators. A birds-eye inspection could have uncovered structural weaknesses before disaster struck. Inspection by drone eliminates the “Needless Climb” -- an unnecessary and potentially dangerous human journey up the side of a tower.

# My First Field Day

By Dino Papas KL0S

I wasn't even a licensed ham when I attended my first Field Day in June 1969. That's because I was still eagerly awaiting my Novice license to arrive from the FCC.

Back in the day, it took a long time from when you passed your exam until you received your paper license in the mail; my first license took eight excruciatingly long weeks to arrive. At the time, you weren't allowed to operate until you had that piece of paper in hand, even though I knew what my call sign would be, as "The Little Print Shop," a well-known purveyor of QSL cards, somehow had supernatural knowledge of the situation and mailed me a nice package of sample QSLs. It was addressed to me along with the moniker "WN6FZN" and arrived several days before my official license did.

My first brief introduction to ham radio was in middle school when a friend lent me his copy of the ARRL license manual. Unfortunately, there was no local ham or anyone at my school to act as a mentor, but I was hooked—I knew someday I'd be a ham!

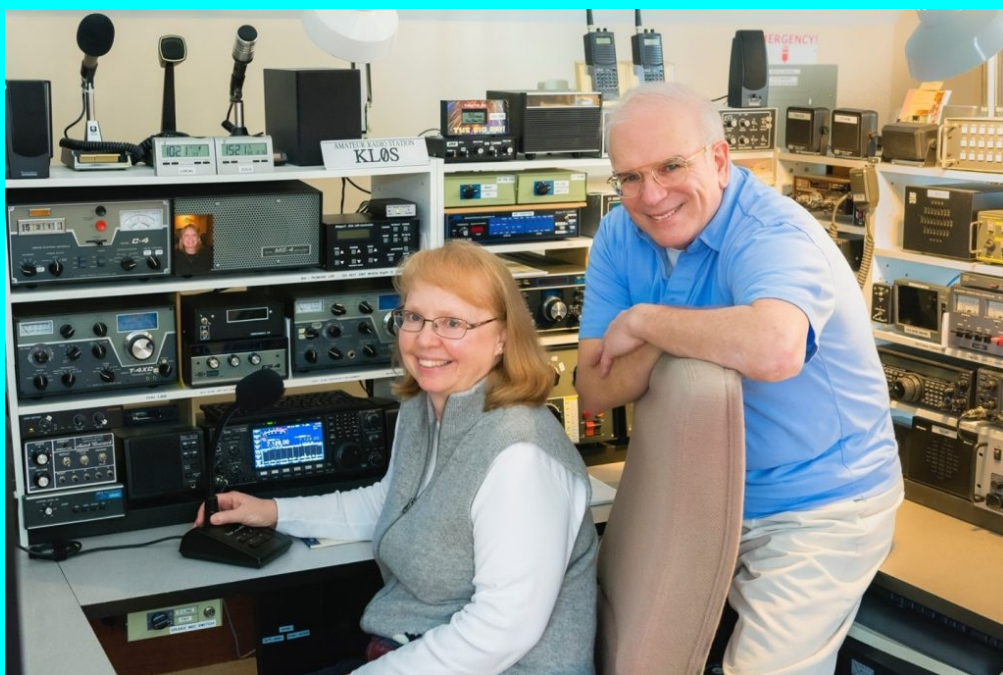
My real gateway to amateur radio was in my high school electronics shop where the Redwood High School Amateur Radio Club, WB6NVY, resided in a corner office.

MTruman Whorton, WB6QFV (SK), a veteran U.S. Navy electronics technician, was our electronics teacher and very first ham mentor all rolled into one. There I learned the "one hand behind your back" rule the hard way when working with high voltage; that darn B+ line on the Novice transmitter I was building got the best of me one day. Fortunately, I lived to tell the tale and was later rewarded with my first real shack.

On that first Field Day, we set up on top of a bare hill in Tiburon, California, under surplus Army-style tents and a noisy generator (Truman still had friends in the Navy). We erected an HF Yagi antenna (below) and operated overnight, sleeping only for short bursts in sleeping bags on the ground. I must have liked it, as I ended up as a soldier for 26 years doing something strikingly similar!

I so wanted to operate that Heathkit SB-101! Fortunately, I got on the air under the control operator's tutelage that weekend and began a journey that has been the better part of my life for over 51 years.

Unfortunately, I don't have any real clear memories of the event, simply the nostalgic feelings of knowing I was there in the tent late at night and how important that single weekend would be in my life. Now, so many years later, along with my better half, Toby, KLØSS, we continue to share our mutual love of the hobby together.





## GEARS Club Officers:

President.....Jim Matthews, K6EST  
Vice-President.....Paul Stewart, N6PAS  
Secretary.....Open  
Treasurer.....Kathy Favor, K6FAV  
ARES.....Dale Anderson, KK6EVX  
Director.....Bennett Laskey, K6CEL  
Director.....Kent Hastings, WA6ZFY  
Director.....Rich Astley, N3UOR  
Past President.....Tom Rider, W6JS  
VEC.....Tom Rider, W6JS

GEARS Radiator past issues are available at:

<https://drive.google.com/drive/folders/0B-jPu0P0RkymZ2Q1WDR6THZLNmM?usp=sharing>

Photos from GEARs Steak 1969

<https://photos.app.goo.gl/euv1NPHCjtwAcwT69>

Photos from GEARs Steak 1989

<https://photos.app.goo.gl/n66qqKsNLdwTgJBc6>

Photos from GEARs Ham Fest 1989

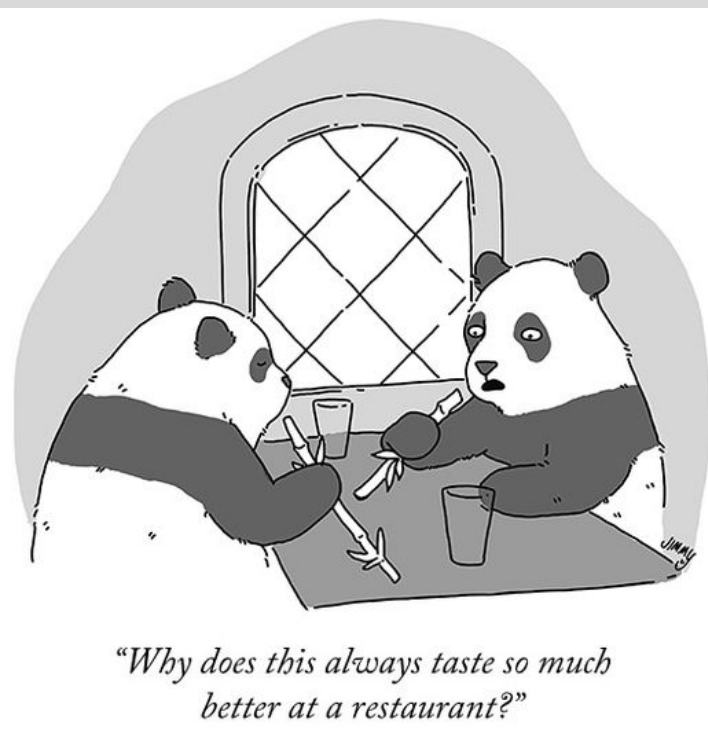
<https://photos.app.goo.gl/kq29mD5io6wXd9fk6>

Photos from GEARs recent GEARs meetings

<https://photos.app.goo.gl/kq29mD5io6wXd9fk6>



COFFEE IN HAND, SUPPLIES AT THE READY,  
ALICE SETTLES IN, WAITING FOR THE  
FIRST TELEMARKETER TO CALL.



*"Why does this always taste so much  
better at a restaurant?"*